Figure 1

5

- 1. Building of Nt sub-vectors sized N/Nt from the vector X
- 2. Multiplication of each of the Nt sub-vectors by a sub-matrix sized (N/Nt)xN obtained from a main matrix sized NxN
 - 3. Sending each of the encoded sub-vectors on each of the Nt antennas
- 4. Reception, by each reception antenna, of a signal corresponding to the sum of the different signals sent by each transmitter antenna affected by their transmission channel
- 5. Equalization associated with the inverse decoding of the recombined transmission matrix
 - 6. Maximum likelihood decoding
 - 7. Transmission channel of each antenna

Figures 5 et 6

15 TEB = BER

1/5

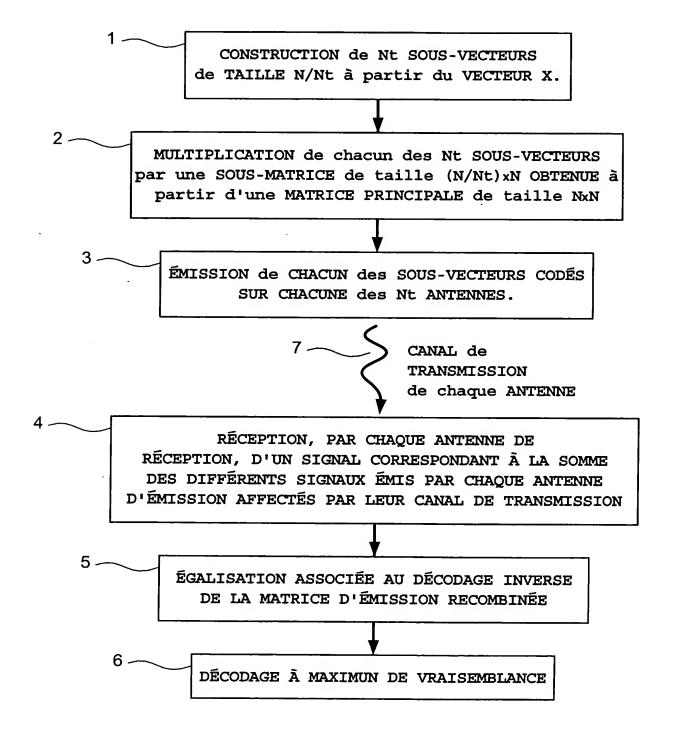
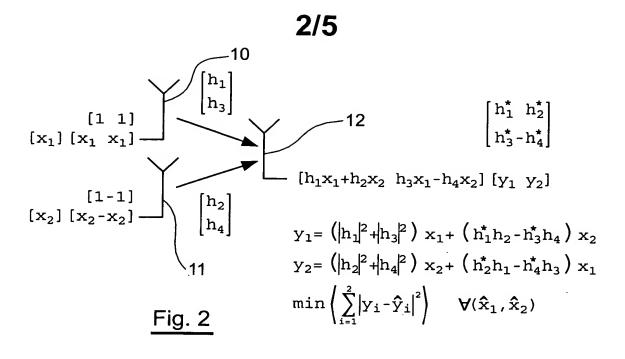


Fig. 1



$$\begin{array}{c} 10 \\ \frac{1}{\sqrt{2}} \begin{bmatrix} 1 & 1 & 1 & 1 \\ 1 & -1 & 1 & -1 \end{bmatrix} \\ \begin{bmatrix} x_1 & x_2 \end{bmatrix} \\ \begin{bmatrix} x_1 & x_2 \end{bmatrix} \\ \begin{bmatrix} x_2 & x_4 \end{bmatrix} \\ \begin{bmatrix} x_3 & x_4 \end{bmatrix} \\ \begin{bmatrix} x_1 & x_2 & x_3 & x_4 \end{bmatrix} \begin{bmatrix} x_1 & x_2 & x_4 \end{bmatrix} \begin{bmatrix} x_1 & x_2 & x_3 & x_4 \end{bmatrix} \begin{bmatrix} x_1 & x_1 & x_2 & x_3 & x_4 \end{bmatrix} \begin{bmatrix} x_1 & x_2 & x_3 & x_4 &$$



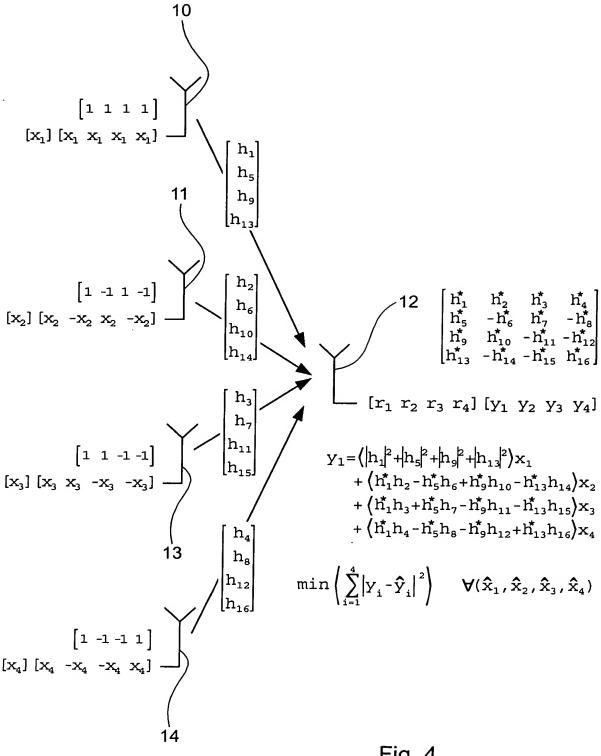


Fig. 4

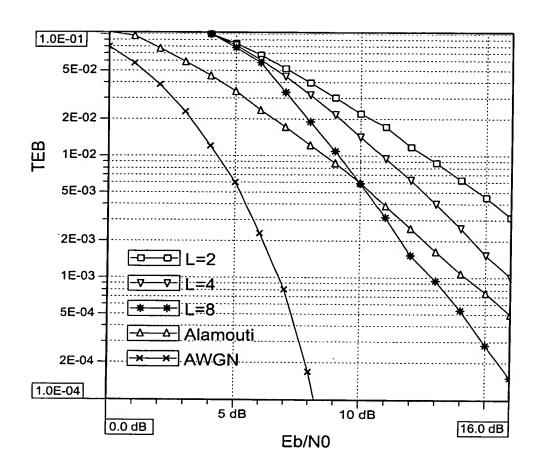


Fig. 5

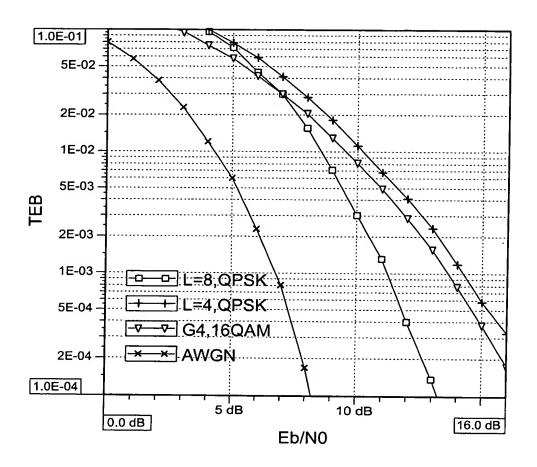


Fig. 6